AMENDMENTS TO THE CLAIMS, COMPLETE LISTING OF CLAIMS IN ASCENDING ORDER WITH STATUS INDICATOR

Please amend the following claims as indicated.

1. (Withdrawn - Previously Presented) A method for constructing a recombinant gene encoding a single-chain variable fragment antibody cloned into an expression vector and fused with a streptavidin-binding peptide (SBP) gene sequence to produce the SBP tagged recombinant scFv Ab fusion protein of claim 4, said method comprising:

(a) encoding anti-VEE single-chain variable fragment antibody (scFv Ab) gene to a recombinant plasmid and inserting a SBP gene and a 6His tag downstream to develop a SBP tagged scFv Ab construct;

(b) amplifying the resultant scFv/SBP/6His by polymerase chain reaction (PCR);

(c) inserting the amplified PCR products into cloning vector to produce a SBP-plasmid;

(d) constructing said SBP-plasmid with promoter to produce a SBP tagged scFv Ab; and

(e) expressing said SBP tagged scFv Ab in *E. coli* cells as inclusion bodies and purifying the expressed SBP tagged scFv Ab by immobilized metal affinity chromatography to obtain the SBP tagged recombinant scFv Ab fusion protein.

2. (Withdrawn - Previously Presented) The method as in claim 1, wherein:

- said recombinant plasmid in step (a) is a pPICZαBmA116 recombinant plasmid;
- said cloning vector in step (c) is pCRT7 TA; and
- said promoter in step (d) is a T7 promoter.

3. (Withdrawn - Previously Presented) The method as in claim 1, wherein said anti-VEE scFv Ab is a mA116 Ab.

4. (Currently Amended) A fusion protein, SBP tagged scFv Ab, comprising a single-chain variable fragment antibody (scFv Ab) fused with a streptavidin-binding peptide (SBP)

sequence, said fusion protein comprising (A) the amino acid sequence encoded by the nucleotide sequence shown in SEQ ID NO: 1 ~~SEQ ID NO.: 1~~ or (B) the amino acid sequence shown in SEQ ID NO: 2 ~~SEQ ID NO.: 2~~.

5. (Canceled).

6. (Canceled).

7. (Original) The SBP tagged recombinant scFv Ab fusion protein of claim 4, wherein said fusion protein has a molecular weight of ~32 kDa.

8. (Previously Presented) The SBP tagged recombinant scFv Ab fusion protein of claim 4, wherein said fusion protein has an antigen-binding affinity to Venezuelan equine encephalitis virus (VEE).

9. (Previously Presented) The SBP tagged recombinant scFv Ab fusion protein of claim 4, wherein said fusion protein has streptavidin-binding activity.

10. (Previously Presented) The SBP tagged recombinant scFv Ab fusion protein of claim 4, wherein said scFv Ab is a mA116 scFv Ab.

11. (Withdrawn - Previously Presented) A method for detecting VEE, comprising:

(a) reacting the SBP tagged recombinant scFv Ab fusion protein of claim 4 with a sample containing VEE for observing antigen-binding activity; and

(b) analyzing the reactant by enzyme-linked immunosorbent assay (ELISA).

12. (Withdrawn) The method of claim 11, wherein said ELISA immunoassay employs an indicator enzyme and substrate system to visually indicate presence of antigen-binding activity.

13. (Withdrawn) The method of claim 12, wherein horseradish peroxidase is used in said ELISA as the indicator enzyme.

14. (Withdrawn) The method of claim 12, wherein 2,2'-azino-di-(3-ethyl-benzthiazoline-sulfonic acid) diammonium salt (ABTS) is used in said ELISA as the substrate system.

15. (Withdrawn - Previously Presented) The method of claim 11, wherein said scFv Ab is a mA116 scFv Ab.